



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0283; Project Identifier MCAI-2021-01285-R; Amendment 39-22070; AD 2022-11-20]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Leonardo S.p.a. Model AB139 and AW139 helicopters. This AD was prompted by a large crack detected on the tail gearbox (TGB) fitting during a scheduled inspection and the determination that certain TGB fittings are required to be inspected by the use of a borescope. This AD requires a one-time borescope inspection of certain part-numbered TGB fittings, and depending on the inspection results, removing the affected part from service and replacing with an airworthy part, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference (IBR). The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For EASA material incorporated by reference (IBR) in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>. For service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va)

Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://customerportal.leonardocompany.com/en-US/>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. Service information that is IBRed is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0259, dated November 17, 2021, and corrected November 22, 2021 (EASA AD 2021-0259), to correct an unsafe condition for Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation, Model AB139 and AW139 helicopters, all serial numbers.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Leonardo S.p.a. Model AB139 and AW139 helicopters. The NPRM published in the *Federal Register* on March 21, 2022

(87 FR 15899). The NPRM was prompted by a large crack that was detected on the inner forward-right side of TGB fitting part number 3G5351A01151, that was discovered during a scheduled inspection of a Model AW139 helicopter. EASA advises that investigation results determined previous inspections on the inner-right side of the TGB fitting were accomplished without the use of a borescope. The NPRM proposed to require a one-time borescope inspection of certain part-numbered TGB fittings, and depending on the inspection results, removing the affected part from service and replacing with an airworthy part, as specified in EASA AD 2021-0259.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. This AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0259 specifies procedures, within the applicable compliance times, for a one-time borescope inspection of certain TGB fittings for a crack or any discrepancy, and replacement of an affected part with a new part as specified in the manufacturer's service information.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Leonardo Helicopters Alert Service Bulletin No.139-686, dated November 8, 2021 (ASB 139-686). This service information specifies procedures

for borescope inspecting the right-hand and forward parts of certain TGB fittings for any cracks or damage and replacing the TGB fitting with a new one, if any cracks or damage are detected. ASB 139-686 also specifies procedures for reporting inspection results if a crack or discrepancy is detected.

Differences Between this AD and EASA AD 2021-0259

EASA AD 2021-0259 applies to Model AB139 and AW139 helicopters, all serial numbers, whereas this AD only applies to Model AB139 and AW139 helicopters with certain part-numbered TGB fittings installed. This AD does not require compliance with paragraph (3) of EASA AD 2021-0259.

Service information referenced in EASA AD 2021-0259 specifies that if any crack or damage is found, replace the damaged TGB fitting with a new one, whereas this AD requires before further flight, removing the affected TGB fitting from service and replacing with an airworthy part.

Costs of Compliance

The FAA estimates that this AD affects 129 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Borescope inspecting the TGB fitting for a crack and any discrepancy (i.e., damage) takes about 4 work-hours for an estimated cost of \$340 per helicopter and \$43,860 for the U.S. fleet.

Replacing the TGB fitting with an airworthy TGB fitting takes about 36 work-hours and parts cost about \$6,650 for an estimated cost of \$9,710 per replacement.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-11-20 Leonardo S.p.a.: Amendment 39-22070; Docket No. FAA-2022-0283;
Project Identifier MCAI-2021-01285-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Leonardo S.p.a. Model AB139 and AW139 helicopters, certificated in any category, with an affected part as identified in European Union Aviation Safety Agency (EASA) AD 2021-0259, dated November 17, 2021, and corrected November 22, 2021 (EASA AD 2021-0259).

(d) Subject

Joint Aircraft Service Component (JASC) Code: 5300, Fuselage Structure.

(e) Unsafe Condition

This AD was prompted by a large crack detected on the tail gearbox (TGB) fitting during a scheduled inspection and the determination that certain TGB fittings are required to be inspected by the use of a borescope. The FAA is issuing this AD to detect cracks on the TGB fitting. The unsafe condition, if not addressed, could result in crack propagation up to a critical length, reduced load capability of the TGB and tail rotor, and subsequent reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021-0259.

(h) Exceptions to EASA AD 2021-0259

(1) Where EASA AD 2021-0259 requires compliance in terms of flight hours (FH), this AD requires using hours time-in-service.

(2) Where EASA AD 2021-0259 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraph (1) of EASA AD 2021-0259 specifies “inspect, using a borescope, the affected part in accordance with the instructions of Section 3 Part I of the ASB,” for this AD replace “in accordance with the instructions of Section 3 Part I of the ASB” with “in accordance with the Accomplishment Instructions, Section 3 Part I, paragraphs 5. through 5.5 of the ASB.”

(4) Where paragraph (2) of EASA AD 2021-0259 specifies “if, during the inspection as required by paragraph (1) this AD, a crack or any discrepancy is detected, replace the affected part in accordance with the instructions of Section 3 Part II of the ASB,” this AD requires before further flight, removing the TGB fitting from service and replacing with an airworthy part, if any crack or discrepancy is detected. For this AD, discrepancies include damage, which includes scratches and dents on the outer surfaces of the forward and right-hand sides of the TGB fitting above the horizontal row of fastener holes. The instructions specified in paragraph (2) of EASA AD 2021-0259 are for reference only and are not required for the replacement required by this paragraph.

(5) Where paragraph (4) of EASA AD 2021-0259 allows (re)installing an affected part provided it is inspected as required by paragraph (1) of EASA AD 2021-0259, for this AD, the inspected part cannot be (re)installed if any crack or discrepancy is detected.

(6) This AD does not mandate compliance with paragraph (3) of EASA AD 2021-0259.

(7) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0259.

(i) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199, provided no passengers are onboard.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local

Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

(2) For service information identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0259, dated November 17, 2021, and corrected November 22, 2021.

(ii) [Reserved]

(3) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX

76177. For information on the availability of this material at the FAA, call (817)

222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating FAA-2022-0283.

(4) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 25, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-13267 Filed: 6/21/2022 8:45 am; Publication Date: 6/22/2022]